

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1.(previously presented): A coordinate mutual conversion module for mutually converting:

a mesh code for displaying a position in a combination of a block number of a block, a unit number of a unit, and a mesh number of a mesh, wherein a globe is divided into six in the east-west direction along longitudes at intervals of 60 degrees, and divided into at least three in the south-north direction along latitudes to define a plurality of numbered blocks, each of said blocks is divided into 100 in the east-west direction and in the south-north direction, respectively, to define a plurality of numbered units in a square shape, and each of said units is divided into 10n in the east-west direction and in the north-south direction, respectively, to define a plurality of numbered meshes in a square shape; and for mutually converting

respective latitudes and longitudes of new positioning system coordinates and old positioning system coordinates, and coordinate values of X, Y coordinates corresponding to the new positioning system coordinates, and the old positioning system coordinates, respectively,

said coordinate mutual conversion module comprising:

input means for entering each of the latitude/longitude and the coordinate values;

block number selecting means for finding in which blocks each of the latitude/longitude and the coordinate values are located;

unit number selecting means for finding in which units in the block found by said block number selecting means each of the latitude/longitude and the coordinate values are located;

mesh number selecting means for finding in which meshes in the unit found by said unit number selecting means each of the latitude/longitude and the coordinate values are located;

output means for calculating and delivering the latitude/longitude, and the coordinate values corresponding to the position in the mesh code representation;

home position setting means for identifying a position by omitting the unit number and entering only the mesh number when data is entered;

mesh code input means for entering the mesh code having a selected number of digits in accordance with an application from among the block number, the unit number, and the mesh number; and

mesh code output means for selecting and delivering a number of digits required in accordance with an application from among the mesh code composed of the block number, the unit number, and the mesh number.

2. (canceled).

3. (canceled).

4. (canceled).

5. (previously presented): A geographic information system having the coordinate mutual conversion module according to claim 1, and a database including the latitude/longitude and the coordinate values for managing digitized maps on a computer to display a position, wherein:

said coordinate mutual conversion module converts the latitude/longitude and the coordinate values of said database to the mesh code to utilize said database, and converts the latitude/longitude and the coordinate values to a mesh code to create a database based on the mesh code.

6. (original): The geographic information system according to claim 5, comprising:

display means for displaying a map with the mesh code superimposed thereon;

direct input means for entering an arbitrary position as the mesh code having a selected number of digits; and

means for searching for a position based on the mesh code for the arbitrary position or for searching for a position the mesh code entered through said direct input means.

7. (previously presented): A global positioning system having the coordinate conversion module according to claim 1 for acquiring information on a current position from a coordinate system for the global positioning system, wherein:

said global positioning system regards acquired information on latitude/longitude as the same as the latitude/longitude of the new positioning system coordinates, converts the acquired information to the mesh code by said coordinate mutual conversion module, and delivers the mesh code.

8. (previously presented): A portable terminal including the global positioning system according to claim 7, said portable terminal comprising:

direct input means for entering an arbitrary position as the mesh code having a selected number of digits; and

a function for displaying a current position, a map around a destination, as required, together with the mesh code having the selected number of digits, and displaying a distance to the destination and a direction to the destination.

9. (original): The portable terminal according to claim 8, comprising means for entering and delivering the mesh code having a number of digits selected in accordance with an application through speech.

10. (original): The portable terminal according to claim 8 or 9, comprising:

image pick-up means for picking up an image;

image recording means for recording the mesh code for a picked-up position acquired by said global positioning system or for recording the mesh code entered through said direct input means, said mesh code being superimposed on the picked-up image; and

transmitting means for transmitting the image recorded by said image recording means.

11. (original): An image pick-up apparatus having the global positioning system according to claim 7, for recording a picked-up image, said image pick-up apparatus comprising:

direct input means for entering a current position as mesh code having a selected number of digits; and

means for superimposing the mesh code for positional information on a picked-up position acquired by said global positioning system or for superimposing the mesh code entered through said direct input means on the picked-up image..

12. (original): The image pick-up apparatus according to claim 11, comprising:

calculating means for calculating the mesh code for the position of a subject based on the distance from said image pick-up apparatus to the subject, and a direction of the subject to said image pick-up apparatus; and

means for displaying the mesh code calculated by said calculating means with a selected number of digits on a picked-up image.

13. (original): A navigation system having the global positioning system according to claim 7, for detecting a current position of a mobile unit, and searching for an itinerary from the detected current position to a destination, said navigation system comprising:

direct input means for entering a destination as the mesh code having a selected number of digits;

means for displaying the current position by the mesh code having the selected number of digits; and

means for searching for a position with the mesh code having the selected number of digits.

14.(original) The navigation system according to claim 13, comprising means for transmitting at least one item of positional information acquired by the global positioning system, the mesh code for the positional information, and the mesh code entered by said direct input means.

15. (original): The navigation system according to claim 13 or 14, comprising means for recording and printing the mesh code for an acquired arbitrary position.

16. (original): A mobile unit comprising the global positioning system according to claim 7, said mobile unit being selected from a group comprising a vehicle, a tracked vehicle, a ship, and an aircraft.

17. (original): A vehicle management system having a vehicle and a management center for managing an operation of said vehicle, wherein:

said vehicle comprises the global positioning system according to claim 7,

said global positioning system comprises display means for displaying a current position and a destination as represented by the mesh code having a selected number of digits, an itinerary from the current position to the destination, and a map; search means for searching for the itinerary of said vehicle, and the current position and the destination position using the mesh code having the selected number of digits; input means for entering the destination as represented by the mesh code having the selected number of digits; means for receiving the mesh code transmitted from said management center; transmitting means for transmitting a signal

indicative of the current position; and recording means for recording a variety of information including information on the position of said vehicle at each hour, and

said management center comprises managing means which have means for entering a destination as represented by the mesh code having the selected number of digits; means for displaying the current position of said vehicle; means for searching for the current position and the destination of said vehicle using the mesh code having the selected number of digits; means for transmitting the mesh code having the selected number of digits to said vehicle; and information recording means for recording a variety of information including the information on the position of said vehicle at each hour.

18. (original): A server for managing an operation of a vehicle having a global positioning system according to claim 7, comprising:

means for entering a destination as represented by the mesh code having a selected number of digits;

means for displaying a current position of said vehicle;

means for searching for the current position and a destination of said vehicle using the mesh code having the selected number of digits; and

means for transmitting the mesh code having the selected number of digits to said vehicle.

19. (original): A program for causing a computer to execute processing for managing an operation of a vehicle having the global positioning system according to claim 7, said program causing the computer to execute:

processing for entering a destination as represented by the mesh code having a selected number of digits;

processing for displaying a current position of said vehicle;

processing for searching for the current position and a destination of said vehicle using the mesh code having the selected number of digits; and

processing for transmitting the mesh code having the selected number of digits to said vehicle.

20.(currently amended) A computer-readable storage medium storing a computer program for causing a computer to execute processing for mutually converting a mesh code for displaying a position in a combination of a block number of a block, a unit number of a unit, and a mesh number of a mesh, wherein a world map is divided into six in the east-west direction along longitudes at intervals of 60 degrees, and divided into at least three in the south-north direction along latitudes to define a plurality of numbered blocks, each of said blocks is divided into 100 in the east-west direction and in the south-north direction, respectively, to define a plurality of numbered units in a square shape, and each of said units is divided into 10n in the east-west direction and in the north-south direction, respectively, to define a plurality of numbered meshes in a square shape, and for mutually converting respective latitudes and longitudes of new positioning system coordinates and old positioning system coordinates, and coordinate values of X, Y coordinates corresponding to the new positioning system coordinates, and the old positioning system coordinates, respectively,

said program causing the computer to execute:



block number selection processing for finding in which blocks each of the entered latitude/longitude and the coordinate values are located;

unit number selection processing for finding in which units in the block found by said block number selection processing each of the latitude/longitude and the coordinate values are located;

mesh number selection processing for finding in which meshes in the unit selected by said unit number selection processing each of the latitude/longitude and the coordinate values are located;

home position setting processing for identifying a position by omitting the unit number and entering only the mesh number when data is entered;

mesh code output processing for selecting and delivering a number of digits required in accordance with an application from among a mesh code composed of the block number, the unit number, and the mesh number;

mesh code input processing for entering the mesh code having the number of digits selected in accordance with an application from among the block number, the unit number, and the mesh number; and

output processing for calculating and delivering the latitude/longitude, and the coordinate values corresponding to the position represented by the mesh code.